CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory

JAS-ANZ
ISO 9001:2000 CERTIFIED

Name of Work : Improvement to Roads, Drains and other Development Works in Kempegowda Nagara Calony and surrounding areas in Ward No.09 (Vidyaranyapura).

Name of Client	:	**Executive Engineer,** Byatarayanapura Division, BBMP, Bangalore.
Contractor/Agency	:	**Executive Engineer,** KRIDL, Bangalore.
Total Cost	:	Rs. 99.50 Lakhs
Date of Inspection	:	30.03.2020
Status of Bill	:	1st & Final Bill
In the Presence of	:	(a) **Assistant Engineer (Ward no.09),** BBMP, Bangalore.
	:	(b) **Mr. Srikanth,** Engineer M/s. Civil Quality Consultants & Engineers, Bangalore.

PMC Report

Sl.No	Description of the Item		Comments / observations
1	KSRRB M200-12.3. Dismantling of existing Reiforced cement concrete grade M-20 above structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications IT No.18.19(KPWD 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory
2	Removing & Refixing stone slabs of drains and pointing in C.M (1:3) (KPWD SR 2018-19, Page No.27, Item No.5.33)	:	Work done up to the billed quantity and Quality is satisfactory
3	KSRRB M300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3.(Page No.-143 I.No-19.1of KPWD S.R 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory
4	KSRRB M200-24 Dismantling of cement concrete pavement by mechanical means using pneumatic tools, breaking to pieces not exceding 0.02 cum in volume and stock pilling at designated locations and disposal of dismantled mateirals stacking serviceble and unserviceble materials seperatly complete as per specifications. MORTH Specifications No.202 (KPWD SR 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
5	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 including cost and conveyance of all materials, labour for all items of work, HOM of equipment with all lead and lift, loading and unloading and all other incidental charges etc., complete as per specification and directions of the Engineer-in-charge of the work.	:	Work done up to the billed quantity and Quality is satisfactory
6	0400 Stone dust / Grit (Page No,-11 I.No,-50 of KPWD S.R 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory
7	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (KPWD SR 2018-19, Page No.155, Item No.20.18)	:	Work done up to the billed quantity and Quality is satisfactory
8	KSRB M2100-10.Providing and laying in position plain cement concrete of mix 1:3:6 with opc cement @220kgs with 20 mm and down size graded granite metal course aggregate @0.84cum and fine aggregates @0.56 cum machine mixed,laid in layers not exceeding 15cms thick well compacted in foundation,plinth and cills including cost of all materials,labour,HOM OF machinary, curing complete as per specification (Pg No-12.Item No.27.18 of KPWD S.R 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory
9	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 Page No. 25 / Item No. 5.9, PWD SR 2018-19	:	Work done up to the billed quantity and Quality is satisfactory
10	KSRB 15.1.3 Providing ruled pointing 20 mm deep to coursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications Page No. 115 / Item No. 15.3, PWD SR 2018-19	:	Work done up to the billed quantity and Quality is satisfactory
11	Providing precast slab of 250mm thick including cost of all materials, labour, curing, transportation, loading unloading, etc.,complete as per the direction of engineer in charge - (Rate Analysis Approved).	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
12	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. Page No.13, Item No. 4.6 PWD SR 2018-19	:	Work done up to the billed quantity and Quality is satisfactory
13	KSRB 4.9.2 : Providing T .M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 for TMT Bars Fe500 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. (Page No-4. 46.2 of KPWD S.R 2018-19)	:	Work done up to the billed quantity and Quality is satisfactory
14	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2	:	Work done up to the billed quantity and Quality is satisfactory
15	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design Mix M20 with OPC @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to IS 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM curing, complete but excluding cost of reinforcement as per specifications.Specification No. KBS 4.1, 4.6(KPWD SR 2018-19, Page No.14, Item No.4.11)	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
16	Construction of un-reinforced plain cement concrete pavement, using grade concrete M20 over a prepared base with OPC course aggregate at 0.69 cum fine aggregates at 0.46 cum course and fine aggregtes confirming to IS : 383-2016, with superplastisiser @3lts confirming to IS9103-1999 mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. (with OPC 320Kg per cum GGBS 40 Kg/cum confirming to IS: 12089 course aggregate @ 0.69cum and fine aggregate @ 0.46cum) Page No. 176 / Item No. 22.6.2 PWD SR 2018-19	:	Work done up to the billed quantity and Quality is satisfactory
17	Providing and laying pre-cast drain cover slabs of 100mm thickness in C.M (1:3) including cost and of all materials, labour,curing transportaion loading and unloading etc. as per directions of the Engineer-in-charge of the work.	:	Work done up to the billed quantity and Quality is satisfactory
18	KSRB15-3 : Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, including providing and removing scaffolding, cost of materials, labour, curing etc., complete as per specification.(KPWD SR 2018-19, Page No.116, Item No.15.18)	:	Work done up to the billed quantity and Quality is satisfactory
19	KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications, including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of modified proctors density. MORTH Specification No. 305 (KPWD SR 2018-19, Page No.147, Item No.19.60)	:	Work done up to the billed quantity and Quality is satisfactory
20	Providing and fixing of wall cladding using 20 mm thick gang saw water cut granite in CM 1:3 proportion cut to required shape patron with paper joint finished with cement mortar using white cement and colour pigments to match the colour of slab making through jointing with sealant, making holes 25mm × 12mm grooves in joints including curing etc., complete - with Sadarahalli granite 20mm thick gang saw with minimum width 1200	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
21	Providing and fixing stainless steel 304 grade for staircase railings, balconies, ramps, with hand rail, 50mm dia 16 guage hollow pipe welded to vertical hollow 50mm dia pipe of 16 guage, stainless steel vertical pipe spaced at 1.20m regular intervals and 5 Nos of 25mm dia. Stainless steel hollow horizontal pipe are welded to vertical 50mm dia hollow pipe. The entire assembly is fixed to staircase concrete by using expansion bolts by drilling concrete etc., complete including cost of materials, labour, HOM of and electrical charges, etc., complete as per specifications. (KPWD SR 2018-19, Page No.45, Item No.7.38)	:	Work done up to the billed quantity and Quality is satisfactory
22	Cutting road surface for pipe line trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc.,in the following qualifications Concrete road (SR BWSSB 2017-18,P-56 it-46.3)	:	Work done up to the billed quantity and Quality is satisfactory
23	Earthwork excavation for pipeline trenches (except building works) including disposing on back up to a lead of 30 mts including danger lighting and using sight rails and boning roads including shoring, strutting, bailing out water at every 100 mts. Wherever necessary as directed in the following strata (SRBWSSB 2017-18,P-51it-1.10)	:	Work done up to the billed quantity and Quality is satisfactory
	Considering 30% for Hard Rock	:	Work done up to the billed quantity and Quality is
24	Supplying of following Dia meters S&S RCC SPUN/VIBRATED CASTPIPES (REINFORCED) of458;1998 amendments NP- 3 class conforming to IS using ordinary port land cement and conveying to worksite rolling and lowering into trenches, laying true to line and level including loading and unloading at both destinations and jointing of pipes & specials including cost of specials including perfect linking of joints with jack to correct position including coat of jointing materials i.e., Rubber rings conforming to IS 5382 for S&S RCCpipes with a lead and lifts as RCC pipes with a lead and lifts as directed and giving necessary hydraulic testing & commissioning etc, complete(contracter will make hisown arrangements for procuring water for testing)before execution of work, contractor shall carry out the contractor shall carry out the survy and will be paid extrass per the sapearte item (SR BWSSB 2017-18, P-158 it 5.20)	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
25	KSRB 12-5 : Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top with table moulded nonmodular bricks of 50 class designation 50 in cement mortar 1:4, inside cement plastered 12mm thick with cement mortar 1:3, finished with a floating coat of neat cement, foundation concrete M 10 using 40mm and downsize granite metal and making necessary channel in cement concrete M 50 with 20mm and downsize granite metal finished with a floating coat of neat cement, with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diametre confirming IS :12592, total weight cover and frame to be not less than 182 kg, fixed in cement concrete 1:2:4, 20mm and downsize broken granite metal, providing and removing centering, shuttering including cost of materials, labour charges, HOM complete as per specifications. (Excavation, footrests and 12mm thick cement plaster on the external surface shall be paidseparately) Specification No. KBS 12.4, deep 0.91m (KPWD SR 2018-19, Page No.73, Item No.11.37)	:	Work done up to the billed quantity and Quality is satisfactory
26	KSRB 12-5 : Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top with table moulded nonmodular bricks of 50 class designation 50 in cement mortar 1:4, inside cement plastered 12mm thick with cement mortar 1:3, finished with a floating coat of neat cement, foundation concrete M 10 using 40mm and downsize granite metal and making necessary channel in cement concrete M 50 with 20mm and downsize granite metal finished with a floating coat of neat cement, with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diametre confirming IS :12592, total weight cover and frame to be not less than 182 kg, fixed in cement concrete 1:2:4, 20mm and downsize broken granite metal, providing and removing centering, shuttering including cost of materials, labour charges, HOM complete as per specifications. (Excavation, footrests and 12mm thick cement plaster on the external surface shall be paid separately) Specification No. KBS 12.4, deep 1.67m (KPWD SR 2018-19, Page No.73, Item No.11.38)	:	Work done up to the billed quantity and Quality is satisfactory
27	KSRB15-3 : Providing 15mm thick cement plaster in single coat with cement mortar to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.(KPWD SR 2018-19, Page No.115, Item No.15.12)	:	Work done up to the billed quantity and Quality is satisfactory
28	Providing and fixing chorinated poly vinyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings, this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete. (external work)..(KPWD SR 2018-19, Page No.99, Item No.13.87.6)	:	Work done up to the billed quantity and Quality is satisfactory

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Sl.No	Description of the Item		Comments / observations
29	Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwedd end) nominal bore including cost of all materials, labour and HOM with all leads complete as per specifications	:	Work done up to the billed quantity and Quality is satisfactory
30	C.P Brass tap with union	:	Work done up to the billed quantity and Quality is
31	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications. (KPWD SR 2018-19, Page No.7, Item No.2.11)	:	Work done up to the billed quantity and Quality is satisfactory
32	Dismantling the damaged or collapsed manholes of 1.20Mtrs dia conical in shape and reconstruction of the same with machine made wire cut brick in shape 1:4 as per design and specification of new manholes of 1:2 Mtrs dia with old frames and covers excluding concrete 1:3:6 (SR BWSSB 2017-18 P 180 it 118)	:	Work done up to the billed quantity and Quality is satisfactory
33	Hire charges for 2HP Dewatering pump to bail out water at leacking pits inclusive of hire charges, cost of fuel Tranaporattion charges, oprater charges etc complstee (SR BWSSB 2017-18 P 37 IT 4)	:	Work done up to the billed quantity and Quality is satisfactory

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